D. L. GROVER & A. S. BEACH.

Harvester-Cutter and Guard-Finger.

No. 208,236. Patented Sept. 24, 1878.

Fig. 1.

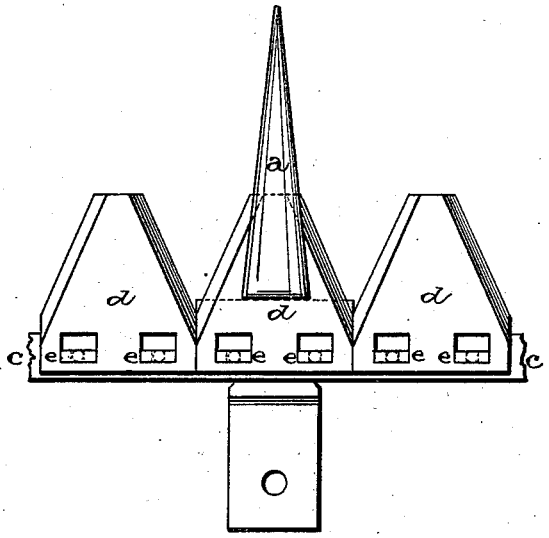


Fig. 2.

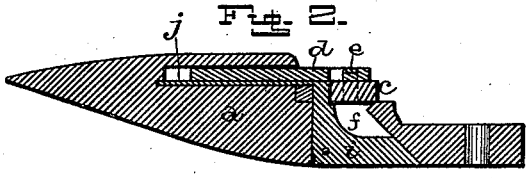


Fig. 3.

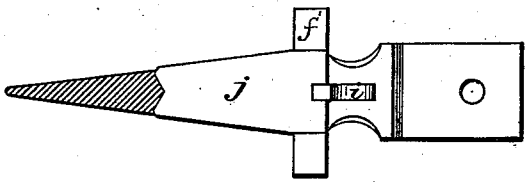


Fig. 4.

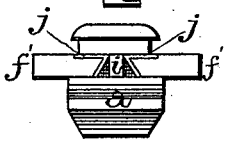
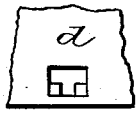


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

DEMAS L. GROVER AND ARAD S. BEACH, OF GROTON, NEW YORK, ASSIGNORS OF ONE-HALF THEIR RIGHT TO HILAND K. CLARK AND DEXTER H. MARSH, OF SAME PLACE.

IMPROVEMENT IN HARVESTER-CUTTERS AND GUARD-FINGERS.

Specification forming part of Letters Patent No. **208,236**, dated September 24, 1878; application filed May 8, 1878.

To all whom it may concern:

Be it known that we, DEMAS L. GROVER and ARAD S. BEACH, of Groton, in the county of Tompkins and State of New York, have invented certain new and useful Improvements in Cutter-Bars and Guards for Mowers and Reapers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in cutter-bars and guards for mowers and reapers; and it consists in the construction and arrangement of parts whereby the sections of the cutter-bar can be independently removed for the purpose of being sharpened, or for any other purpose, and the guard-plates are made independently removable and are each provided with its own locking device, as will be more fully described hereinafter.

The accompanying drawings represent our invention.

a represents a common guard, and *c* the cutter-bar. Each of the sections *d* is detachably connected to the bar by means of long-headed rivets *e*, so that any one or more of the sections can be removed at will without removing or interfering with any other. Through each section, near its rear edge, is formed a T-slot, up through which the tops of the rivets *e* pass. After the heads of the rivets have passed through the slots the sections are pressed forward, so that the heads of the rivets will catch over the tops of the sections and hold them rigidly in place. Through the center of the guard *a* is cut the vertical slot *f*, the front end of which slot is cut half-way or more through the cross-piece *f'*, where the slot is recessed or undercut in the cross-piece on its right and left sides. In the slot is pivoted the triangular lever *i*, the long arm of which operates it from the under side of the guard, raising or depressing the short arm, which plays up and down in front of the slot. The guard-plate *j* fits upon the lower face of the horizontal slot in guard *a*, having its front end shaped, pointed, or cut in any suitable way, so as to hold it firmly in place in some correspondingly-shaped recess in the front end of the slot. The rear end of the guard-plate is recessed or cut out to correspond with the front end of the seat. The piece is not cut out of the plate, however, but is bent under in two flaps, forming two dovetails, which interlock with the undercut or recessed sides of slot *f* in cross-piece *f'*, thus holding the plate firmly in place laterally, while the short arm of the lever *i* fits in the recess in the rear end of the plate and prevents it from moving backward unless the long arm of the lever is drawn downward out of the slot.

When it is desired to remove any one of the guard-plates for any purpose, the cutter-bar is removed. The lever which locks the guard-plate is operated by means of its long arm, when the plate can be slipped backward and removed. The lever may be held in its position (for locking the guard-plate) by means of the cutter-bar, or it may be held, at pleasure, by means of a draw-pin inserted through the back of the guard and the long arm of the lever.

The cutter-bar, with its removable sections, works back and forth in the transverse slot of the guard and over the removable guard-plate *j*.

We are aware that sections of the cutter have been made removable from the cutter-bar by means of rivets and slots; but the removal of one section is then much dependent upon the removal of the others—that is, in order to remove one of the central sections, all of the sections from one end up to this one must first be removed before the central one is taken off. This is the source of much useless trouble.

Our invention consists in making all of the slots and rivet-heads extend in the same direction toward the point of the cutter-bar section, so that any one section or any number of sections may be removed without disturbing the others, ground or repaired, and then replaced.

Of course, numerous changes in the details of construction may be made without departing from the spirit of our invention, and it will be understood that, though we have shown and described the various features of our invention all embodied in one combination, so as to gain

the joint advantage of all of them, different parts of our invention may be used separately, with more or less advantage, under varying circumstances.

Having thus described our invention, we claim—

1. In combination with the cutter-bar *c*, having the headed rivets *e* projecting from its top, the cutter-sections *d*, having the T-shaped slots through their rear ends, all of which slots extend in the same direction toward the points of said sections, so that by moving any one of the sections longitudinally it can be removed and replaced independently of all the others, substantially as set forth.

2. In a mower and reaper, a guard or finger having a longitudinal slot, *f*, and lever *i*, substantially as described.

3. The combination of the plates *j*, provided with devices for holding their ends so that they cannot move laterally, with the pivoted locking-latches, whereby, when the locking-latch appertaining to a guard-plate is removed, the plate can be slid backward out of position, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 27th day of April, 1878.

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ARAD S. BEACH.

Witnesses:
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W. W. HARE.